

Pre-Calculus CP 1 – Section 7.3 Notes
Solving Systems of Equations with THREE unknowns

Name: _____

Ex 1: Super EASY!

$$2x - y + 5z = 24$$

$$y + 2z = 4$$

$$z = 4$$

Ex. 2: Moderately more difficult

a) $x + y + z = 6$

$$2x - y + z = 3$$

$$3x - z = 0$$

b) $6y + 4z = -12$

$$5x + 3y = 4$$

$$3y - 4z = 4$$

Ex. 3: Difficult- lots of steps!

a)
$$\begin{aligned} 2x + 4y + z &= 1 \\ x - 2y - 3z &= 2 \\ x + y - z &= -1 \end{aligned}$$

b)
$$\begin{aligned} x + 2y - 7z &= -4 \\ 2x + y + z &= 13 \\ 3x + 9y - 36z &= -33 \end{aligned}$$

Application

A small corporation borrowed \$775,000 to expand its clothing line. Some of the money was borrowed at 8%, some at 9%, and some at 10%. How much was borrowed at each rate if the annual interest owed was \$67,500 and the amount borrowed at 8% was four times the amount borrowed at 10%?

Homework: p. 527, #1a, 5, 13, 15, 43